



Lloyd's
Register

Transport
Canada
Safety and Security



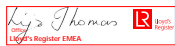
CERTIFICATE OF TYPE APPROVAL ISSUED ON BEHALF OF TRANSPORT CANADA

This is to certify that

The product detailed below will be accepted for compliance with the applicable Lloyd's Register Rules and Regulations with regards to the International Convention for the Safety of Life at Sea, (SOLAS), 1974, as amended, for use on ships and offshore installations classed with Lloyd's Register, and for use on ships and offshore installations when authorised by Transport Canada to issue the relevant certificates, licences, permits etc.

Manufacturer	Daniamant Limited
Address	Unit 3, The Admiral Park Portsmouth Hants, PO3 5RQ United Kingdom (UK)
Type	Manually controlled flashing position indicating lights
Description	Manually controlled flashing position indicating lights for survival craft - Type "RL5 (Daniamant)"
Specified Standard	TP 14475E IMO Resolution MSC.81(70), Part 1, as amended

**The attached Design Appraisal Document forms part of this certificate.
This certificate remains valid unless cancelled or revoked, provided the conditions in the attached Design Appraisal Document are complied with and the equipment remains satisfactory in service.**

Date of issue	24 March 2017	Expiry date	23 March 2022
Certificate No.	LRTC 0000136	Signed	
Sheet No	1 of 4	Name	L. Thomas Surveyor to Lloyd's Register EMEA A Member of the Lloyd's Register Group

Note:

This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify Lloyd's Register of any modification or changes to the equipment in order to obtain a valid Certificate.

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



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DESIGN APPRAISAL DOCUMENT

Date	Quote this reference on all future communications
27 March 2017	SOUTSO/SFS/RA/LT/WP27423868

ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LRTC 0000136

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions, and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

<u>Plan/Doc No.:</u>	<u>Revision</u>	<u>Title or Description</u>
TF--011	05	Technical File

Installation and Maintenance Instruction, RL5 Liferaft Light, 48-135, Issue 05 (C6495)

TEST REPORTS

- RL5 Evaluation and Test Report, Document No 010-06, Dated 15/05/2006
- RL5 Tested to meet the requirement of MSC.226(82), Document No: 08-10, Dated 26/03/2008
- RL5 with Modified 8 LED External Light Assembly, Document No: 11-01, Dated 16/03/2011
- Environmental Testing to BS EN 60945:2002 (as required by amendment to MSC.81(70) – MSC.323(89)., Document No: 75917538, Issue 1, Dated April 2012
- Thermal Cycling test, flash rate test and luminous intensity test, Document No: 75932844 THC 02, Dated 21/07/2016
- Optical Testing of Survivor Locator Lights Daniamant 'Type RL5'(Report to support 75934744), Document OC-0599-01, Dated 11/06/2016
- Environmental Testing of the RL5 Light for the use of alternative LED, Document No: 75936166, 24/11/2016
- Optical Testing of Survivor Locator Lights Daniamant 'Type RL5', Report to support 75936166, Document No: OC-0654, Dated 04/11/2016
- Mould Growth Test, Document No:15256-2, Dated 15/02/2012
- Optical Testing of Survivor Locator Lights Daniamant 'Type RL5' for the use of alternative LED, Document No OC-0576-01, Dated 18/02/2016
- Type Approval testing for the acceptance of laser marking of the lights , Visual Inspection, Corrosion, Oil resistance and Solar Radiation of M2 and M3 lights , Test report Danak-19/13095, Dated 15 May 2013.
- Temperature cycling and Chromaticity test 'Type RL5', Document 75934744 THC 01 Issue 1, Dated 28/04/2016

CONDITIONS OF CERTIFICATION

1. Each light shall be clearly marked with:
 - a. The manufacturer's name or trademark, the model designation and lot number
 - b. Transport Canada approval number assigned to the light
 - c. Instructions on how to activate the light
2. Lights powered by batteries shall be marked permanently and legibly with the month and year of manufacture and its expiration



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3. Each light is to be marked with the information required by the LSA Code Paragraph 1.2.2.9 and 1.2.3.
4. Lights which have reached their date of replacement shall be disposed of safely with due regard to their lithium batteries
5. Instruction for use in both English and French shall be provided with each light as prescribed by SOLAS Regulation III/35 one or more additional copies shall be provided for inclusion in the Vessel's Training Manual. Attachment and operating instructions shall be supplied in a format suitable for insertion into the vessel's training manual
6. All instructions or markings that accompany life-saving appliances or are printed directly on the appliances must be in both English and French as per Transport Canada Standard No: TP 14612E (05/2011), paragraph 2.2.1.3. However independent signage can be accepted in lieu of the instructions or marking required in paragraph 2.2.1.3 if it is in both English and French, highly visible (size, colour, posting location), water and weather proof and posted at each muster station and where the appliance is stored
7. The arrangements and installation of the lights on survival crafts are not part of this design appraisal or certificate and are to be to the satisfaction of the Surveyors attending on board
8. If the specified standards are amended during the validity of this certificate, this product type is to be re-approved prior to it being supplied to vessels to which the amended standards apply
9. Production tests are to be conducted in accordance with the applicable requirements of IMO Resolution MSC.81(70), Part 2, Paragraph 1.2. This does not preclude any further testing to additional requirements of the Marine Administration of the country where the ship is registered (i.e. the flag state) or those acting on behalf of that Administration
10. Production items are to be manufactured in accordance with a quality control system which shall be maintained to ensure compliance with SOLAS III/5
11. Should a change of Place of Production from that stated below be required i.e. where the stages of manufacture/assembly/testing of this product take place, the new Place of Production is to be advised to us prior to the change taking place. This certificate will require to be updated for Approval to be maintained



Lloyd's
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Lloyd's Register EMEA

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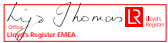
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ATTACHMENT TO CERTIFICATE OF TYPE APPROVAL No. LRTC 0000136

PLACES OF PRODUCTION

Daniamant Limited and Daniamant ApS
Unit 3, The Admiral Park Industrivej 24C
Airport Service Road 3550 Slangerup
Hilsea Denmark
Portsmouth
Hampshire
PO3 5RQ
United Kingdom



Lijo Thomas
Senior Specialist
Statutory Fire & Safety
Southampton Technical Support Office, Marine & Offshore
Lloyd's Register EMEA

Supplementary Type Approval Terms and Conditions

This certificate and Design Appraisal Document relates to type approval, it certifies that the prototype(s) of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein, it does not mean or imply approval for any other use, nor approval of any products designed or manufactured otherwise than in strict conformity with the said prototype(s).